



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#10

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In re application of : F. Himmelsbach et al.
Serial no. : 10/081,826
Filed : 02/22/2002
For : Xanthine derivatives, the preparation thereof and their use as
pharmaceutical compositions
Art Unit : 1624
Examiner : Berch, Mark L.

DECLARATION OF FRANK HIMMELSBACH, UNDER 37 CFR 1.132

Commissioner of Patents and Trademarks
Washington, DC 20231

Sir:

I, Frank Himmelsbach solemnly states and declares as follows:

1. My technical background is as follows: I am a trained chemist having received a doctorate (Dr. rer. nat.) in chemistry from the University of Konstanz, Germany in 1984 .

I did a postdoctoral study at the Imperial College London from September 1984 to December 1984. I joined the Department of Chemistry of Dr. Karl Thomae GmbH, Biberach/Riss, Germany in 1985 as Head of Laboratory, and I presently hold the position of Group Leader in the Department of Chemistry Research of Boehringer Ingelheim Pharma GmbH & Co. KG (formerly named Dr. Karl Thomae GmbH), Biberach/Riss, Germany.

I am a member of the "Gesellschaft Deutscher Chemiker" (Society of German Chemists).

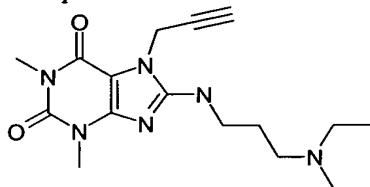
2. I am familiar with the subject matter of the above-noted patent application.

3. I am familiar with the Office Action dated 12/20/2002, and I am familiar with the reference JP 37-4895 cited by the Examiner in the obviousness rejection contained therein.

4. In my capacity as Group Leader in the Department of Chemistry Research I supervised the synthesis of compounds under the research division's program directed to the development of compounds active for DPP-IV inhibition.

5. In order to demonstrate the unexpectedly improved anti-DPP-IV activity for the compounds of the present invention, where R⁴ is an amino group substituted by R¹⁵ and R¹⁶, for comparison reasons we attempted to synthesize:

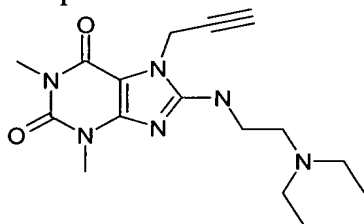
compound A:



which is described in JP 37-4895

and

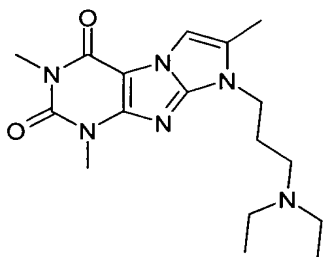
compound B:



which is described in US 2,928,833 (Example XXIII).

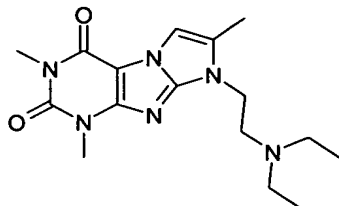
We were unable to prepare the comparison compounds.

In the case of compound A we followed the procedure given in the English abstract. We were, however, not able to isolate the desired substance. As the major product we isolated a compound to which the following structure was assigned:



An additional compound with a molecular weight of 262 (mol weight of desired compound: 346) has been isolated as a minor component.

Following the procedure given in US 2,928,833 we could also not isolate the compound we aimed at. The substance we obtained had the same tricyclic core structure we already observed in the case of compound A:



6. In summary, following the available procedures we could not obtain the desired compounds but rather isolated derivatives that resulted from an unexpected cyclization reaction. These derivatives are structurally distinct and not suggestive of the presently claimed compounds.

The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: June 6, 2003

Signature: F. Himmelsbach
Frank Himmelsbach